Title (en)

E/Z-isomeric mixtures and pure Z-isomers of N-alpha-(2-cyano-2-alkoxyiminoacetyl) amino-acid derivatives and like peptides.

Title (de)

E/Z-Isomerengemische und reine Z-Isomere von N alpha-(2-Cyan-2-alkoximinoacetyl) aminosäurederivaten und- peptiden.

Title (fr)

Mélanges E/Z-isomères et les Z-isomères purs de dérivés d'acides amino et de peptides N-alpha-(2-cyano-2-alkoxyiminoacétyl).

Publication

EP 0257294 A1 19880302 (DE)

Application

EP 87110459 A 19870720

Priority

DE 3625497 A 19860728

Abstract (en)

1. Mixtures of E/Z isomers and pure Z isomers of N**alpha -(2-cyano-2-alkoximino-acetyl)-amino acid derivatives and peptides of the general formula (I) see diagramm : EP0257294,P17,F1 in which R represents straight-chain or branched alkyl having 1 to 8 carbon atoms, alkenyl or alkinyl in each case having 2 to 4 carbon atoms, cyanoalkyl having 1 to 4 carbon atoms, 1,2,4-triazol-1-ylalkyl and pyrazol-1-ylalkyl in each case having 1 to 6 carbon atoms in the alkyl part, phenylalkyl, having 1 to 4 carbon atoms in the alkyl part, which is optionally mono- to trisubstituted in the phenyl part by identical or different substituents, substituents which may preferably be mentioned being : halogen, cyano, nitro, hydroxyl, alkyl, alkoxy, alkylsulphinyl, alkylsulphonyl and alkylthio in each case having 1 to 4 carbon atoms, and phenyl which is optionally mono- to trisubstituted by identical or different halogen substituents ; or represents cycloalkyl, having 3 to 7 carbon atoms, which is optionally mono- to trisubstituted by identical or different substituents, substituents which may preferably be mentioned being halogen and alkyl having 1 to 4 carbon atoms ; R**1 represents hydrogen, straight-chain or branched alkyl having 1 to 4 carbon atoms, or phenyl or benzyl which is in each case optionally mono- to trisubstituted by identical or different substituents, suitable substituents preferably being the phenyl substituents already mentioned in the case of R ; R**2 represents hydrogen or straight-chain or branched alkyl having 1 to 4 carbon atoms ; R**3 represents hydrogen, straight-chain or branched alkyl having 1 to 6 carbon atoms, straight-chain or branched hydroxyalkyl having 1 to 4 carbon atoms, alkoxycarbonylalkyl having 1 to 4 carbon atoms in both the alkoxy part and in the alkyl part, hydroxycarbonylalkyl and aminocarbonylalkyl in each case having 1 to 4 carbon atoms in the alkyl part, 1,2,4-triazol-1-ylalkyl, 1,2,4-triazol-4-ylalkyl, imidazol-4-ylalkyl and pyrazol-1-ylalkyl in each case having 1 to 6 carbon atoms in the alkyl part, cyanoalkyl having 1 to 4 carbon atoms, alkenyl or alkinyl in each case having 2 to 4 carbon atoms, cycloalkyl, having 3 to 7 carbon atoms, which is optionally mono- to trisubstituted by identical or different substituents, substituents which may preferably be mentioned being halogen and alkyl having 1 to 4 carbon atoms, furthermore represents phenyl or phenylalkyl, having 1 to 4 carbon atoms in the alkyl part, which is optionally mono- to trisubstituted in the phenyl part by identical or different substituents, suitable substituents in each case preferably being the phenyl substituents already mentioned in the case of R, or represents the R**4 -SOn -Z group, where R**4 represents hydrogen, straight-chain or branched alkyl having 1 to 4 carbon atoms, phenylalkyl, having 1 to 4 carbon atoms in the alkyl part, which is optionally mono- to trisubstituted in the phenyl part by identical or different substituents, suitable substituents being the phenyl substituents already mentioned in the case of R ; n represents the numbers 0, 1 or 2, and Z represents a straight-chain or branched alkylene chain having 1 to 4 carbon atoms ; R**1 and R**3 , together with the nitrogen atom and the carbon atom to which they are bound, represent a 5- or 6-membered heterocycle ; R**2 and R**3 , together with the carbon atom to which they are bound, represent cycloalkylidene having 3 to 6 carbon atoms ; X represents the -OR**I or -NR**II R**III groups, where R**1 represents hydrogen, straight-chain or branched alkyl having 1 to 4 carbon atoms, or alkenyl or alkinyl in each case having 2 to 4 carbon atoms ; R**II represents hydrogen or straight-chain or branched alkyl having 1 to 4 carbon atoms ; R**III represents hydrogen, straight-chain or branched alkyl having 1 to 4 carbon atoms, alkenyl or alkinyl in each case having 2 to 4 carbon atoms, halogenoalkyl having 1 to 4 carbon atoms and 1 to 5 identical or different halogen atoms, alkoxyalkyl having 1 to 4 carbon atoms in both the alkoxy part and in the alkyl part, dialkylaminoalkyl having up to 4 carbon atoms in the individual alkyl parts, alkoxycarbonylalkyl having 1 to 4 carbon atoms in both the alkoxy part and in the alkyl part, hydroxycarbonylalkyl having 1 to 4 carbon atoms in the alkyl part, aminocarbonylalkyl, alkylaminocarbonylalkyl or dialkylaminocarbonylalkyl in each case having 1 to 4 carbon atoms in each alkyl part cyanoalkyl having 1 to 4 carbon atoms in the alkyl part, phenylalkyl, having 1 to 4 carbon atoms in the alkyl part, which is optionally mono- to trisubstituted in the phenyl part by identical or different substituents, or phenyl which is mono- to trisubstituted by identical or different substituents, suitable substituents in each case being the phenyl substituents already mentioned in the case of R, and also represents cycloalkyl, having 3 to 7 carbon atoms, which is optionally substituted by identical or different substituents, suitable substituents preferably being halogen and alkyl having 1 to 4 carbon atoms ; or R**II and R**III , together with the nitrogen atom to which they are bound, represent a 5- or 6-membered heterocycle, which may optionally contain oxygen or nitrogen as further heteroatoms and may optionally be substituted by cyano, halogen, alkyl having 1 to 4 carbon atoms, hydroxycarbonyl, alkoxycarbonyl having 1 to 4 carbon atoms in the alkoxy part, aminocarbonyl, and alkylaminocarbonyl and dialkylaminocarbonyl in each case having 1 to 4 carbon atoms in the individual alkyl parts, with the exception of the compounds N-(methoxycarbonylmethyl)-(2-cyano-2-methoximino)-acetamide and N-(carbamoylmethyl)-(2-cyano-2-methoximino)-acetamide.

Abstract (de)

E/Z-Isomerengemische und reine Z-Isomere von N<α>-(2-Cyan-2-alkoximino-acetyl)-aminosäurederivate und -peptide der allgemeinen Formel <IMAGE> in welcher R für Alkyl, Alkenyl, Alkinyl, Cyanalkyl, Azolylalkyl, gegebenenfalls substituiertes Phenylalkyl sowie für gegebenenfalls substituiertes Cycloalkyl steht; R^1 für Wasserstoff, Alkyl, gegebenenfalls substituiertes Phenyl sowie für gegebenenfalls substituiertes Benzyl steht; R^2 für Wasserstoff oder Alkyl steht; R^3 für Wasserstoff, Alkyl, Alkoxycarbonylalkyl, Hydroxycarbonylalkyl, Aminocarbonylalkyl, Azolylalkyl, Cyanalkyl, Hydroxyalkyl, Alkenyl, Alkinyl, gegebenenfalls substituiertes Cycloalkyl, für gegebenenfalls substituiertes Phenyl und Phenylalkyl sowie für die Gruppierung R<4>-SOn-Z- steht, wobei R<4> für Wasserstoff, Alkyl sowie gegebenenfalls substituiertes Phenylalkyl steht; n für die Zahlen 0, 1 oder 2 steht und Z für eine geradkettige oder verzweigte Alkylenkette steht; R^1 und R^3 gemeinsam mit dem Stickstoff-Atom und dem Kohlenstoffatom, an die sie gebunden sind, für einen 5- oder 6-gliedrigen Heterocyclus stehen; R^2 und R^3 gemeinsam mit dem Kohlenstoffatom, an das sie gebunden sind, für Cycloalkyliden stehen und X für die Gruppierung -OR<I> oder NR<II>R<III> steht, wobei R<I> für Wasserstoff, Alkyl, Alkenyl oder für Alkinyl steht; R<II> für Wasserstoff oder Alkyl steht; R<III> für Wasserstoff, Alkyl, Alkenyl, Alkinyl, Halogenalkyl, Alkoxyalkyl, Dialkylaminoalkyl, Alkoxycarbonylalkyl, Hydroxycarbonylalkyl, Aminocarbonylalkyl, Alkylaminocarbonylalkyl, Dialkylaminocarbonylalkyl, Cyanoalkyl, gegebenenfalls substituiertes Phenylalkyl, gegebenenfalls substituiertes Phenyl, gegebenenfalls substituiertes Cycloalkyl steht, oder R<II> und R<III> gemeinsam mit dem Stickstoff-Atom, an das sie gebunden sind, für einen gegebenenfalls substituierten Heterocyclus stehen, der weitere Heteroatome enthalten kann, sowie deren physiologisch verträgliche,gegebenenfalls substituierte Ammonium-, Alkali- und Erdalkali-Salze sowie Metallsalz-Komplexe, Verfahren zur Herstellung dieser Verbindungen und deren Verwendung als Fungizide.

IPC 1-7

C07C 131/00; A01N 37/50

IPC 8 full level

A01N 37/46 (2006.01); **A01N 37/50** (2006.01); **C07C 67/00** (2006.01); **C07C 241/00** (2006.01); **C07C 251/02** (2006.01); **C07C 255/64** (2006.01); **C07C 313/00** (2006.01); **C07C 315/04** (2006.01); **C07C 317/50** (2006.01); **C07C 323/59** (2006.01); **C07D 231/12** (2006.01); **C07D 249/08** (2006.01); **C07D 295/18** (2006.01)

CPC (source: EP KR)

A01N 37/50 (2013.01 - EP); **C07C 265/06** (2013.01 - KR)

Citation (search report)

- [A] DE 2312956 A1 19730920 - DU PONT
- [XP] EP 0201999 A1 19861120 - ICI PLC [GB]
- [AP] EP 0206004 A1 19861230 - BAYER AG [DE]

Cited by

EP0493683A1

Designated contracting state (EPC)

AT BE CH DE ES FR GB GR IT LI NL SE

DOCDB simple family (publication)

EP 0257294 A1 19880302; **EP 0257294 B1 19900912**; AT E56428 T1 19900915; AU 7611587 A 19880204; BR 8703865 A 19880329; DE 3625497 A1 19880211; DE 3764909 D1 19901018; DK 390487 A 19880129; DK 390487 D0 19870727; HU T45840 A 19880928; IL 83313 A0 19871231; JP S6335555 A 19880216; KR 880001579 A 19880425; PT 85361 A 19870801; PT 85361 B 19891020; ZA 875490 B 19880427

DOCDB simple family (application)

EP 87110459 A 19870720; AT 87110459 T 19870720; AU 7611587 A 19870723; BR 8703865 A 19870727; DE 3625497 A 19860728; DE 3764909 T 19870720; DK 390487 A 19870727; HU 342487 A 19870727; IL 8331387 A 19870724; JP 18676187 A 19870728; KR 870008144 A 19870727; PT 8536187 A 19870720; ZA 875490 A 19870727